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| FORM PTO-13 (REV. 11-2000) | | ATTORNEY'S DOCKET NUMBER |
|-------------------------------|--|--|
| | RANSMITTAL LETTER TO THE UNITED STATES | 31446-179039 |
| | DESIGNATED/ELECTED OFFICE (DO/EO/US) | U.S. APPLICATION NO. (If known, see 37 CFR 1.5) |
| | CONCERNING A FILING UNDER 35 U.S.C. 371 | Unassigned 10/070540 |
| 1 | ATIONAL APPLICATION NO. INTERNATIONAL FILING DATE | PRIORITY DATE CLAIMED |
| PCT/IN9 | | September 7, 1999 |
| | OF INVENTION: A PHARMACEUTICAL AYURVEDIC PREPARATION | |
| APPLICA | ANT(S) FOR DO/EO/US: Vaidya Balendu PRAKASH | |
| Applican | t herewith submits to the United States Designated/Elected Office (DO/EO/US) the | following items and other information: |
| 1. 🖂 | This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. | |
| 2. 🗆 | This is a SECOND or SUBSEQUENT submission of items concerning a filing un | nder 35 U.S.C. 371. |
| 3. 🗆 | This is an express request to begin national examination procedures (35 U.S.C. 37 (9) and (21) indicated below. | 1(f)). The submission must include items (5), (6), |
| 4. 🗆 | The US has been elected by the expiration of 19 months from the priority date (Ar | ticle 31). |
| 5. 🛛 | A copy of the International Application No. PCT/IN99/00042 published as WO 0 | I/17540 A1. |
| | a. is attached hereto (required only if not communicated by the Internation | al Bureau). |
| | b. has been communicated by the International Bureau. (attach form IB 30 | 08) |
| | c. \square is not required, as the application was filed in the United States Receiving | ng Office (RO/US). |
| 6. 🗆 | An English language translation of the International Application as filed (35 U.S. | C. 371(c)(2)). |
| | a. is attached hereto. | |
| | b. has been previously submitted under 35 U.S.C. 154(d)(4) | |
| 7. 🗆 | Amendments to the claims of the International Application under PCT Article 19 | (35 U.S.C. 371(c)(3)). |
| | a. are attached hereto (required only if not communicated by the Internation) | nal Bureau). |
| | b. have been communicated by the International Bureau. | |
| ļ | c. \square have not been made; however, the time limit for making such amendme | nts has NOT expired. |
|] | d. have not been made and will not be made. | |
| 8. 🗆 | An English language translation of the amendments to the claims under PCT Artic | sle 19 (35 U.S.C. 371(c)(3)). |
| 9. 🗆 | An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). | |
| 10. 🗆 | An English language translation of the annexes of the International Preliminary E | xamination Report under PCT Article 36 (35 |
| | U.S.C. 371(c)(5)). | |
| Iten | ns 11 to 20 below concern document(s) or information included: | |
| 11. | An Information Disclosure Statement under 37 CFR 1.97 and 1.98. | |
| 12. 🗆 | An assignment document for recording. A separate cover sheet in compliance with | h 37 CFR 3.28 and 3.31 is included. |
| 13. 🛛 | A FIRST preliminary amendment. | |
| 14. 🗌 | A SECOND or SUBSEQUENT preliminary amendment. | ٩ |
| 15. 🗆 | A substitute specification. | , |
| 16. 🗌 | A change of power of attorney and/or address letter. | f |
| 17. 🗌 | A computer-readable form of the sequence listing in accordance with PCT Rule 1 | 3ter.2 and 35 U.S.C. 1.821 - 1.825. |
| 18. 🗆 | A second copy of the published international application under 35 U.S.C. 154(d)(| 4). |
| 19. 🗌 | A second copy of the English language translation of the international application | under 35 U.S.C. 154(d)(4). |
| 20. 🗆 | Other items or information: | ! |
| 20a. 🗌 | For purposes of examination, please insert the annexes to the IPER, so that the pages of the English translation: Specification: Original pages Claims: Amended claims - | ne application will comprise the following |

| Γ | U.S. APPLICATION NO. (if known, 2.3 | £070540 | INTERNATIONAL APPLICATION | NO | ATTORNEY'S DOCKET NUM | BER |
|-------|---|--|---|-----------------------|------------------------------|---------------------------|
| İ | 21. The following | fees are submitted: | | | CALCULATIONS P | TO USE ONLY |
| ١ | | EE (37 CFR 1.492 (a) (1 | 1) - (5): | | | |
| | Neither international pre international search fee | eliminary examination fe (37 CFR 1.445(a)(2)) pared by the EPO or JPO | e (37 CFR 1.482) nor id to USPTO and Interna | tional \$1040.00 | | |
| | International preliminar but International Search | y examination fee (37 Cl Report prepared by the | FR 1.482) not paid to US EPO or JPO | PTO \$890.00 | | |
| | International preliminar but international search | ry examination fee (37 Cl fee (37 CFR 1.445(a)(2) | FR 1.482) not paid to US) paid to USPTO | PTO \$710.00 | | |
| | all claims did not satisfy | ry examination fee (37 Cl y provisions of PCT Artic | cle 33(1)-(4) | \$690.00 | | |
| | International preliminar all claims satisfied prov | ry examination fee (37 Classions of PCT Article 33 | (1)-(4) | \$100.00 | | |
| | | | PRIATE BASIC FEE | | \$1,040.00 | |
| | Surcharge of \$130.00 for from the earliest claime | or furnishing the oath or ed priority date (37 CFR | declaration later than \[\] 1.492(e)). | 20 30 months | \$ | |
| | CLAIMS | NUMBER FILED | NUMBER EXTRA | RATE | \$ | |
| | Total claims | 18 - 20 = | 0 | x \$18.00 | \$ 0 | |
| | Independent claims | 2 - 3 = | 0 | x \$80.00 | \$ 0 | |
| | MULTIPLE DEPEND | ENT CLAIMS(S) (if app | licable) | + \$270.00 | \$ 0 | |
| 11 11 | | ТОТ | TAL OF ABOVE CA | LCULATIONS = | \$1,040.00 | |
| | Applicant claims s | small entity status. See 3 | 7 CFR 1.27. The fees in | dicated above | \$ | |
| | are reduced by 1/2 | | | SUBTOTAL = | \$1,040.00 | |
| | Processing fee of \$130 | .00 for furnishing the Enst claimed priority date (| glish translation later than 37 CFR 1.492(f)). | n 🗌 20 🔲 30 | \$ | |
| ī | | | | NATIONAL FEE = | \$1,040.00 | |
| Ų | Fee for recording the e | nclosed assignment (37 Coropriate cover sheet (37 | CFR 1.21(h)). The assign | nment must be | \$ | |
| | accompanied by an app | bropriate cover sneet (37 | | EES ENCLOSED = | \$1,040.00 | |
| | | | | | Amount to be refunded: | \$ |
| | | | | | charged: | \$ |
| | | amount of \$ 1,040.00 to | | | | |
| | b. Please charge n | ny Deposit Account No. | | in the amount of \$ | to co | over the above fees. |
| | Account No. 22 | oner is hereby authorized 2-0261. A duplicate copy | y of this sheet is enclosed | i. | | |
| | not be included | charged to a credit card. I on this form. Provide c | redit card information an | d authorization on PT | O-2038. | |
| | NOTE: Where an ap | ppropriate time limit un inted to restore the appl | der 37 CFR 1.494 or 1.dication to pending statu | 495 has not been met | , a petition to revive | (37 CFR 1.137 (a) or (b)) |
| | SEND ALL CORRES | PONDENCE TO: | | SIG | NATURE Ashrey J | . Wells |
| | VENABLE | | | סטר | SISTRATION NUMBER | R: 29.847 |
| | P.O. Box 34385 Washington D.C. 200 | 43-9998 | | KEC | | <u> 1N</u> |
| | Phone No. 202-962-48 Fax No. 202-962-8300 | 300 | | | <u>March 7, 2002</u> DATE | |
| | Fax No. 202-902-8300 | J | | | | |

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Vaidya Balendu PRAKASH

Int'l Appl. No.: PCT/IN99/00042

Int'l Filing Date: September 7, 1999

For: A PHARMACEUTICAL AYURVEDIC PREPARATION

Art Unit: NOT YET ASSIGNED

Examiner: NOT YET ASSIGNED

Atty. Docket No.: 31446-179039

Customer No.

26604

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PATENT TRADEMARK OFFIC

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Prior to calculation of any fees, please amend the Application to eliminate multiple claim dependency and for formal reasons as follows.

IN THE CLAIMS:

Please replace claims 1, 9 and 15 with new claims 1, 9, and 15 which have been amended as shown in the attached marked-up copy.

1. (Once amended) A process for preparing an ayurvedic preparation, comprising the steps of:

subjecting silver, mercury, sulphur and arsenic trisulphide to the steps of detoxification, grinding the detoxified mercury and silver in the presence of a citrus juice and then adding detoxified sulphur and again subjecting to the steps of grinding to obtain a greyish black

powder, adding adding detoxified arsenic trisulfide thereto and subjecting to the step of grinding, imparting a shape such as a ball thereto, coating the ball with detoxified sulphur in the presence of a citrus juice and subjecting the coated ball to the step of slow firing, adding detoxified arsenic trisulphide and firing, repeating said steps of addition and firing ground in a citrus juice such that the weight of the ball is reduced by at least 10% to obtain an intermediate, adding serpentive and delphenium root thereto.

- 9. (Once amended) The process as claimed in claim 3, wherein said repetitive steps comprise 7 repetitive steps.
- 15. (Once amended) The process as claimed in claim 14, wherein one part of detoxified sulphur is ground in citrus juice and coated to said shape and then introduced in said vessel and fired in cowdung.

REMARKS

This Preliminary Amendment replaces claims 1, 9 and 15 with new claims 1, 9, and 15 which have been amended as shown in the attached marked-up copy of these claims.

Claims 1-18 are pending in this U.S. National Stage Application.

An early action on the merits is earnestly requested.

Respectfully submitted,

Date: March 7, 2002

(Registration No. 29,847)

VENABLE

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DC2-DOCS1-356694

MARKED-UP VERSION OF CLAIMS 1, 9 and 15:

1. (Once amended) A process [on] <u>for preparing an ayurvedic preparation</u>, comprising [in] the steps of:

subjecting silver, mercury, sulphur and arsenic trisulphide to the steps of detoxification, grinding the detoxified mercury and silver in the presence of a citrus juice and then adding detoxified sulphur and again subjecting to the steps of grinding to obtain a greyish black powder, adding adding detoxified arsenic trisulfide thereto and subjecting to the step of grinding, imparting a shape such as a ball thereto, coating the ball with detoxified sulphur in the presence of a citrus juice and subjecting the coated ball to the step of slow firing, adding detoxified arsenic trisulphide and firing, repeating said steps of addition and firing ground in a citrus juice such that the weight of the ball is reduced by at least 10% to obtain an intermediate, adding serpentive and delphenium root thereto.

- 9. (Once amended) [A] <u>The process as claimed in [claims 3 to 7] claim 3, wherein said repetitive steps comprise 7 repetitive steps.</u>
- 15. (Once amended) [A] <u>The process</u> as claimed in claim 14, wherein one part of detoxified sulphur is ground in citrus juice and coated to said shape and then introduced in said vessel and [tired] <u>fired</u> in cowdung.

WO 01/17540

TITLE OF THE INVENTION

A PHARMACEUTICAL AYURVEDIC PREPARATION

FIELD OF INVENTION

This invention relates to a pharmaceutical ayurvedic preparation for the treatment of leukemia. The preparation of the present invention has a particular application for the treatment of acute mycloid leukemia, acute promyelcocytic leukemia and acute lymphoblastic leukemia. The present invention also relates to a process for preparing the pharmaceutical ayurvedic preparation.

PRIOR ART

Chemical pharmaceutical preparations are normally prescribed for treatment of leukemia. No prior public literature is known for an ayurvedic preparation for treatment of leukemia.

OBJECTS OF THE INVENTION

An object of this invention is to propose a novel ayurvedic preparation for treatment of leukemia.

Another object of this invention is to propose an ayurvedic preparation for treatment of leukemia and which does not have any side effects.

DESCRIPTION OF THE INVENTION

According to this invention, there is provided a process for the preparation of an ayurvedic preparation comprising in the steps of subjecting silver, mercury, sulphur and arsenic trisulphide to steps of detoxification, the grinding the detoxified mercury and silver in the presence of a citrus juice and then adding detoxified sulphur and again subjecting to the step of grinding to obtain a detoxified powder, adding black greyish trisulphide thereto and subjecting to the step of grinding,

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imparting a shape such as a ball thereto, coating the ball with detoxified sulphur in the presence of a citrus juice and subjecting the coated ball to the step of slow firing, adding detoxified arsenic trisulphide and firing, repeating said steps of addition and firing ground in a citrus juice such that the weight of the ball is reduced by at least 10% to obtain an intermediate, adding serpentive and delphenium root thereto.

The expression detoxification used herein is not intended to imply that silver, mercury, sulphur and arsenic trisulphide are treated such as to detoxify the elements in the mixture stage, but to imply that such elements do not exhibit any adverse side effects in the end preparations.

In accordance with this invention, silver in a purified form which is subjected to a step of detoxification. Such a step of detoxification consists in converting silver bars into sheets and then to repetitive steps of heating and introduction into sesame oil. By way of example and without implying any limitation, such a step of heating and introducing into sesame oil is repeated several times, such as seven times.

Thereafter, the treated silver is again heated and then introduced into butter milk. The step of heating and introduction into butter milk after each step of heating is also repeated several times, such as seven times.

The partially detoxificated silver is again heated and then introduced into cow urine and which step is repeated several times, such as seven times.

30 The treated silver is again heated and introduced into a herbal composition. Such a step of heating and introduction into a herbal composition is again preferably repeated several times, such as seven times. The herbal composition comprises amla, harar and behera and present preferably in equal parts.

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The treated silver is again heated several times and then after each step of heating is treated with kutli. Such a step is also repeated several times, such as seven times. The aforesaid step consits in the detoxification of silver. The process of the present invention includes the step of detoxification of mercury. For this purpose, an amalgam is first prepared from a mixture of copper, which may be in the form of wire, in lemon juice and mercury. Preferably 1/2-1/8 parts of copper wire is added to every one part of mercury which is then ground to obtain an amalgam. Such an amalgam is then subjected to a step of distillation to extract mercury therefrom. The step of grinding and distillation is effected several times in order to obtain detoxified mercury. Preferably but without implying any limitation to the step of detoxification is carried seven times.

The next step is the process consists in the purification of sulphur. For this purpose, crystalline sulphur is introduced into a crucible and having melted butter therein. Preferably, equal amounts of melted butter and sulphur are introduced into the crucible and heated on a low fire. Trifla is then added to the mixture and whereby a scum of pure sulphur is formed and removed.

The process also comprises in introducing arsenic trisulphide disposed within a cotton cloth and introduced into a vessel containing calcium oxide solution and then into another vessel of pumpkin juice or vice versa. The arsenic trisulphide is heated in calcium oxide solution and pumpkin juice for a period of 3 to 5 hours, such as 4 hours and, then dried.

The next step in the process consists in grinding detoxicated silver and mercury in the presence of citrus juice, such as lemon juice, and such that detoxicated silver is dissolved in mercury. Preferably, one part of detoxicated silver is added to one part of mercury and

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Thereafter, purified sulphur is added thereto and ground to greyish black powder. Preferably, one part of purified sulphur is added thereto. Upon grinding and obtaining a greyish black powder purified arsenic trisulphide is added to the greyish black powder in the presence of a citrus juice, such as lemon juice, which is then subjected to a step of grinding to obtain a paste. Such a paste is shaped into balls and then air dried. Preferably, one part of arsenic disulphide is added thereto.

The next step in the process consists in coating such balls with a paste of sulphur in lemon juice.

Such a ball is introduced into an earthenware vessel which is sealed with a strip of cotton and dipped in clay. The vessel is introduced into a bed containing dry cowdung which is then fired such that the temperature rises to a temperature of 500-600°C and then gradually reduces.

The vessel is then opened and arsenic trisulphide is added thereto in the presence of lemon juice and subjected to the step of firing. The step of adding arsenic trisulphide and firing is repeated 30-60 time to obtain a more potent intermediate product, and such that the weight is reduced by at least 10%.

Such an intermediate product is thereafter added to serpentine and delphenium root and ground in distilled rose water for approximately seven days repeated with sandalwood water for seven day and finally with latakasturi water for seven days to obtain a paste which is then shaped into balls.

30 Further objects and advantages of this invention will be more apparent from the ensuing example and clinical trials.

EXMAPLE

Silver, mercury, sulphur and arsenic trisulphide was

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detoxified in a manner as described hereinabove. Thereafter, the ball was prepared consisting of:

detoxified silver = 250 gms

detoxified mercury = 250 gms

detoxified sulphur = 500 gms

detoxified arsenic

trifulphide= 250 gms

The ball had a weight of 1250 gms and then provided with a coating of detoxified sulphur ground in lemon juice and such that the coated ball had a weight of 1400 gms. Such a ball was then introduced into an earthen vessel or pot and sealed with a strip of cotton, dipped in clay. The vessel is introduced into a pit containing cow dung and fired. Such a process was repeated as shown in Table 1 to produce the intermediate product. Thereafter, the final product was prepared in a manner as described herein above.

TABLE1

| VESSEL | GROUND ARSENIC trisul- phide | WITH LEMON Juice | PERIOD DAYS | WT.BEFORE | PERIOD OF FIRING days | WT. AFTER FIRING gm |
|--------|---------------------------------------|------------------------|----------------|-----------|--------------------------------|------------------------------|
| 1 | 0 | 0 | 0 | 1400 | 1 | 940 |
| 1 | 25g | 450ml | 6 | 1120 | 1 | 975 |
| 1 | 25g | 400ml | 17 | 1100 | 1 | 940 |
| 1 | 25g | 400ml | 22 | 1050 | 1 | 940 |
| 2 | 25g | 400ml | 29 | 1110 | 1 | 930 |
| 2 | 25g | 450ml | 36 | 1090 | 1 | 975 |
| 2 | 25g | 400ml | 41 | 1070 | 1 | 940 |
| 2 | 25g | 400ml | 50 | 1040 | 1 | 940 |
| 2 | 25g | 450ml | 58 | 1050 | 1 | 930 |
| 2 | 25g | 550ml | 67 | 1080 | 1 | 940 |

| 2 | 25g | 500ml | 73 | 1070 | 1 | 950 |
|---|-----|-------|-----|------|---|------|
| 2 | 25g | 750ml | 80 | 1070 | 1 | 970 |
| 2 | 25g | 750ml | 84 | 1050 | 1 | 970 |
| 2 | 25g | 800ml | 89 | 1060 | 1 | 940 |
| 2 | 25g | 900ml | 96 | 1080 | 1 | 950 |
| 2 | 25g | 900ml | 103 | 1100 | 1 | 1000 |
| 2 | 25g | 900ml | 110 | 1120 | 1 | 970 |
| 2 | 25g | 900ml | 116 | 1050 | 1 | 950 |
| 2 | 25g | 900ml | 121 | 1020 | 1 | 950 |
| 2 | 25g | 750ml | 128 | 1050 | 1 | 990 |
| 2 | 25g | 1m008 | 135 | 1080 | 1 | 980 |
| 2 | 25g | 750ml | 140 | 1050 | 1 | 950 |
| 2 | 25g | 650ml | 148 | 1050 | 1 | 950 |
| 2 | 25g | 700ml | 153 | 1020 | 1 | 950 |
| 2 | 25g | 700ml | 159 | 1080 | 1 | 980 |
| 2 | 25g | 650ml | 173 | 980 | 1 | 920 |
| | | | | | | |

The results of clinical trials on patients with the preparation of the present invention were as follows:

TABLE2 DETAILS OF THE PATIENTS WHO COMPLETED 90 DAYS OF TREATMENT FOR ACUTE PROMYELOCYTIC LEUKEMIA WITH PRESENT MEDICINE

| | S.No. | Name/Age | Category | Duration of | Treatment | Status after |
|----|-------|----------|----------|-------------|------------|--------------------|
| 25 | | | Fresh/ | From | To | 90 days |
| | | | Relapse | | | |
| | 1. | ARK/41 | F | 09.09.1997 | 30.01.1998 | Complete remission |
| | | | | | | on 26.12.1997 |
| | 2. | VR/40 | F | 04.12.1997 | 22.04.1999 | Complete remission |
| | | | | | | on 14.03.1998 |
| | 3. | PK/50 | F | 04.12.1997 | 20.03.1998 | Complete remission |

| | | | | | on 16.03.1998 |
|-----|-------|---|------------|------------|--------------------|
| 4. | VC/48 | R | 22.12.1997 | 15.04.1998 | Complete remission |
| | | | | | on 01.04.1998 |
| 5. | F/29 | R | 09.04.1998 | 07.12.1998 | Bone marrow not |
| | | | | | done, blood report |
| | | | | | normal |
| 6. | NS/15 | R | 18.04.1998 | 30.01.1999 | Complete remission |
| | | | | | on 25.07.1998 |
| 7. | PR/48 | F | 26.01.1999 | 15.05.1999 | Complete remission |
| | | | | | on 12.04.1999 |
| 8. | MS/28 | R | 19.02.1999 | 15.06.1999 | Complete remission |
| | | | | | on 11.06.1999 |
| 9. | PS/29 | R | 25.03.1999 | 05.07.1999 | Complete remission |
| | | | | | on 03.07.1999 |
| 10. | MN/30 | R | 30.03.1999 | 10.07.1999 | Complete remission |
| | | | | | on 05.07.1997 |

F-Fresh, R-Relapse

TABLE3

DETAILS OF BONE MARROW OF THE PATIENTS WHO

COMPLETED 90 DAYS OF TREATMENT FOR ACUTE

PROMYELOCYTIC LEUKEMIA

| | S.No. | Name/Age | Before | Ayurvedic | treatment | After Ayurve ment | | ays of treat- |
|----|-------|----------|--------|-------------------------|-----------|----------------------------|----------------|------------------|
| | 1. | ARK/41 | | 239863,repl | | PS and 523986 free c | -D, is | } |
| | | | | _ | | hemopo | | |
| 15 | 2. | VR/40 | | rrow shows ocytes-M3 | abnorma! | Bone remiss | marro sion, | ow in no |

| | | | promyelocytic cells seen |
|------------|---------|--|--|
| 3. | PK/50 | Bone marrow replaced with | Bone marrow in |
| ٥. | PR/ 30 | abnormal promyelocytes-M3 | remission with |
| | | abibinal promyerocytes-ris | normal cells |
| 4. | VC/48 | Pono marrous choses himor | Bone marrow in |
| 4. | VC/ 46 | Bone marrow shows hyper | remission with |
| | | granulated M3 cells | |
| | | | normal hemopoitic cells |
| 5. | F/29 | Bone marrow shows abnormal | Bone marrow not |
| 5. | £ / 29 | | done |
| 6. | NS/15 | promyelocytes-M3 Bone marrow shows 60-65% | Bone marrow in |
| 0. | No/) J | abnormal promyleocytes, APML | remission, no |
| | | | APML cells identi- |
| | | relapse, N ₈₋₁₀ , L ₃₋₅ , MRBC 25% | fied, PS shows |
| | | | • |
| 7. | PR/48 | Bone marrow shows hyper | P ₆₄ L ₃₃ E ₂ M ₁ Bone marrow shows |
| , . | 11,740 | granulated promyleocytes | normal hemopoitic |
| | | AML-M3 | with mild megalo- |
| | | | blastic change. |
| | | | There is no |
| | | | morphological |
| | | | evidence of |
| | | | residual leukemia |
| 8. | MS/28 | Bone marrow in relapse- | Bone marrow shows |
| | | AMI_M3 | normal hemopoitic. |
| | | | No leukemic cells |
| | | | identified |
| 9. | PS/29 | Bone marrow shows total | Bone marrow shows |
| | | replacement by abnormal hyper | normal hemopoitic |
| | | granular promyleocytes | cells of all |
| | | | series. No |
| | | | evidence of leuk- |
| | | | emia seen |
| 10. | MN/30 | Bone marrow shows abnormal | Bone marrow shows |
| | | | |

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promyelocytes along with few normal neutrophils-AML-M3 relapse normal hemopoitic cells in all series. No evidence of residual leukemia

| s. | Name/Age | Blood | First day | After 30 | After 60 | After 90 |
|-----|----------|------------|--|---|---|---|
| No. | | report | ··· | days | days | days |
| 1. | ARK/41 | Hb gm% | 7.1 | 9.9 | 13.5 | 14.8 |
| | | TLC | 1100 | 1450 | 5100 | 3100 |
| | | DLC | ^N 10 ^L 30 ^{Abn} 60 | N ₃₁ L ₆₉ | ^N 60 ^L 34 ^E 6 | N ₅₇ L ₂₇ E ₁₀ M ₄ |
| | | ESR | 138 | 37 | 8 | - |
| | | Platelets | 19000 | 258000 | 172000 | 174000 |
| 2. | VR/40 | Hbgm % | 5.6 | 8.2 | 9.6 | 10.0 |
| | | TLC | 1600 | 620 | 3200 | 3900 |
| | | DLC | ^N 35 ^L 29 ^E 2 ^M 2 ^{Abn} 30 | ^N 32 ^L 22 ^E 4 ^M 2 Abno ₂₀ | N ₄₀ L ₃₈ E ₄ Abn ₁₈ | N ₇₃ L ₂₁ E ₄ M ₂ |
| | | ESR | _ | - | - | |
| | | Platelets | 40000 | 180000 | 200000 | 200000 |
| 3. | PK/50 | Hbgm % | 10.2 | 9.3 | 10.1 | 13.9 |
| | | TLC | 2000 | 6800 | 7000 | 9000 |
| | | DLC ESR | ^N 7 ^L 10 ^M 2 ^{Abn} 81 | ^N 70 ^L 30 | ^N 66 ^L 33 ^E 1 10 | ^N 63 ^L 37 |
| | | Plateltes | 35000 | 25000 | 252000 | 330000 |
| 4. | VC/48 | Hbgm % | 8.0 | 9.5 | 11.8 | 9.6 |
| | | TLC | 28000 | 650 | 7500 | 4800 |
| | | DLC | ^N 30 ^L 35 ^E 5 ^M 4 ^{Abn} 26 | ^N 20 ^L 80 | ^N 58 ^L 26 ^M 2 Abn ₁₄ | ^N 79 ^L 13 Abn ₄ |
| | | ESR | 75 | - | - | _ |
| | | Platelets | 110000 | 22000 | 85000 | 120000 |
| 5. | F/29 | Hbogm % | 9.0 | 9.0 | 5.0 | 9.6 |
| | | | | | | |

| | | TLC | 4900 | 4900 | 2500 | 1000 |
|-----|-------|------------|---|--|---|--|
| | | | N ₈ L ₄₇ M ₅ Abn ₄₀ | _ | N ₄₅ L ₅₄ B ₁ | N ₂₆ L ₅ E ₁ Abn ₄₆ |
| | | | | Abn ₄₀ | 90 | 130 |
| | | ESR | | 75000 | 18000 | 55000 |
| | | Platelets | | | 11.0 | 11.7 |
| 6. | NS/15 | Hbgm % | | 8.4 | 7900 | 8500 |
| | | TLC | 400 | 63200 | | |
| | | DLC | ^N 64 ^L 36 | | ^N 57 ^L 40 ^E 3 | **60=37=3 5 |
| | | ESR | - | 42 | 238000 | 218000 |
| | | Platelets | | 64000 | | 11.4 |
| 7. | PR/48 | Hb gm % | 12.7 | 10.2 | 10.5 | 5500 |
| | | TLC | 2000 | 3000 | 3500 | |
| | | DLC | ^N 7 ^L 43 ^{Abn} 50 | N ₁₃ L ₂₇ E ₄ Abn ₅₆ | N ₄₈ L ₃₇ E ₆ Abn ₂ B ₁ | N55 ¹ 41 B ₁ Abn ₂ |
| | | ESR | 43 | - | - | - |
| | | Platelets | 76000 | 90000 | 298000 | 310000 |
| 8. | MS/28 | Hbgm % | 7.0 | 10.5 | 13.0 | 14.3 |
| • | • | TLC | 12200 | 5700 | 7200 | 9200 |
| | | DLC ESR | ^N 8 ^L 30 ^{Abn} 62 48 | N ₅₅ L ₄₄ E ₁ M ₅ | 2 N ₇₃ L ₂₂ E ₅ | ^N 64 ^L 33 ^E 3 - |
| | | Platelet | | 103000 | 141000 | 169000 |
| • | DC/20 | Hb gm % | | 12.2 | 15.0 | 14.9 |
| 9. | PS/29 | TLC | 2240 | 2900 | 5200 | 4600 |
| | | DLC | N ₁₅ L ₁₀ M ₅ Abn ₇ | 0 N _{33 4} L ₅₀ | 2 ^E 8 3 ^M 11 | 7 ^L 30 5 ^E 8 6 ^M 12 |
| | | | | _ | 5 | 1 ^B 01 7 |
| | | ESR | - 25000 | - 298000 | 202000 | 189000 |
| | | Platelet | | 9.0 | | 9.8 |
| 10. | MN/30 | Hb gm % | 6.5 8200 | 7300 | | 5600 |
| | | TLC DLC | N ₂₇ L ₄₈ E ₁ | N ₇₁ L ₂₃ M ₆ | | N ₈₂ L ₁₇ |
| | | | Abn ₂₄ | 7, 25 0 | | M ₁ |
| | | ESR | | _ | | 60 |
| | | | ts 120000 | 230000 | | 150000 |
| | | | | | | |

N-Neutrophils, L-Lymphocyte, E-Eosinophils, M-Monocyte, B-Basophil, Abn-Abnormal cell

DETAILS OF LIVER, KIDNEY FUNCTION AND LIPID PROFILE OF THE PATIENTS

TREATED FOR ACUTE PROMYELOCYTIC LEUKEMIA

| | Moment / Acres | | Pre Avurvedic treatment | atment | After 90 d | After 90 days of Ayurvedic treatment | eatment |
|-------|----------------|--|--|--|--|--------------------------------------|---|
| S.00. | Notifier/ and | LFT | Lipid profile | KFT | LFT | Lipid profile | KFT |
| - | ARK/41 | NA | NA | NA | Bilirubin (T)-1.2 | NA | Blood -23 |
| | | | | | mg/dl Bilinbin(D) | | mgs/dl Serum- |
| | | | | | -0.3 mg/dl Protein total -7.8 mg/dl sgor-29, sgpr- | | 0.8 mg /dl creat- inine |
| | | | | | 35 Alk.P161 | | |
| 2 | VR/40 | NA | NA | NA | NA | NA | NA |
| | PK/50 | Bilirubin(T)-04 mgs/100ml Bilirubin(C)-0.2 mgs/100ml SGOT-75u/1,SGPT- 35 Alk.P324 u/l | NA | Blood urea NA-21mgs/100 Serum creatinine -1.1 mgs/ | AM | NA | Blood -34mgs % serum creat- inine- 1.3mgs |
| • | VC/48 | Bilirubin(T)-0.7 mg% Bilirubin(C)-0.3 mgs% Protein total- 7.0 gm% Albumin-3.9gm% Globulin-3.1gm% SGOT-20u/1, SGPT-25 | Total cholestrol- 168 mg/dl HDL cholestrol- 380 mg/dl VLDL cholestrol- 29 mg/dl LDL cholestrol- 101 mg/dl Triglyscerides- 433 mg/dl | Blood urea –26 mg% Serum creatinine –1.0 mg% serum uric acid-4.9 mg% | Bilirubin(T)- 0.72 mg/dl Bilirubin(D)- 0.3 mg/dl Protein total -6.2 mg/dl Albumin-3.6 SGOT-20u/1, SGPT-25 Alk.P430 | - Cholestrol-198 mg/dl - 11 | NA |

| WO 01/17540 | | 12 | PCT/IN99/00042 |
|-------------|---|--|---|
| NA | AM | lood urea- 7mg% Serum creat inine-0.6 mg% Calcium-9.7 mg% Phosphorus- 4.3 mg% Sodium-114 meg/1 chloride- | Total chol- Blood urea estrol-146 -33 mg/dl mg/dl Serum HDL choles- creatinine trol-32 mg/ -0.5 mg/dl dl LDL choles- trol-53 mg/ dl Triglyacer-ides-306 mg/dl |
| NA | NA | , i & | T |
| NA | NA | Bilirubin(T)- Total choles B 0.6mg% HDL cholestrol 0.6 mg% 0.5 mg% Protein total- VLDL cholestrol -150 mg% Protein total- VLDL cholestrol c.4 mg% Albumin-3,7 mg%Triglyscerides SGOT-49u/1, GGFT-17u/1 Alk.P17 u/1 | Bilirubin(T) -0.5 mg/dl Protein total -6.6 g/dl Albumin-4.2 g/dl SGOT-62 u/1, SGPT-138 u/1 |
| NA | Blood sugar -90 mg\$ Blood urea -19 mg\$ Serum creatinine -0.8 mg\$ | Blood-34 mgs/dl urea Serum-1.2mg/dl creatinine Uric-2.8mg/dl acid | NA |
| NA | Total cholestrol-185 mg% HDL cholestrol-42 mg% VLDL cholestrol-21 mg% LDL cholestrol-122 mg% Triglyscerides-105 mg% | | NA |
| NA | Bilirubin(T)0.5 mg/dl Bilirubin(D)-0.3 mg/dl Protein total- 7.1 g/dl Albumin-3.4 g/dl SGOT-10u/1, | Aik.F103 Bilirubin(T)-1.57 mg/dl Bilirubin(D)-0.14 mg/dl Bilirubin(ID)-1.43 mg/dl Protein total-6.9 mg/dl SGOT-29, SGPT-22 Alk.P183.8 | NA |
| F/29 | NS/15 | PR/48 | MS/28 |
| r. • | • 9 | | . |

| 01/17540 | 13 | PC |
|--|---|-------|
| choles- 17 mg/dl trol-156 Serum creating/dl nine-1.0 mg/dl strol- 22.15 mg% mg/dl LDL chole- Phosphorus- LDL chole- Phosphorus- 2.9 mg/dl g/dlstrol- 2.9 mg/dl 2.9 mg/dl youb chol- chole- mg/l chole-105 estrol- chol- chol- chole-105 estrol- chol- chol- chole-105 estrol- chol- chole-105 estrol- chole- | Serum urea-29.3 strol-mg/dl mg/dlSerum creatinine toles1.0 mg/dl 16.2 toles- 56.5 choles- | mg/dl |
| Bilirubin(T) Total -0.7 mg/dl choles- Bilirubin(D)- mg/dl Bilirubin(ID)- mg/dl Bilirubin(ID)- HDL chole- 0.5 mg/dl strol- Protein total- LDL chole- 7.7 g/dl Albumin-4.6 g/dlstrol- Albumin-4.6 g/dlstrol- GGTP-89 u/l estrol- GGTP-89 u/l 27.35 mg% Alk.P473 u/l Trigly- scerides- | Bilirubin(T)- 0.7 mg/dl Bilirubin(D)- 0.3 mg/dl GGOT-22.8iu/l SGPT-27.6iu/l Alk.P360.5 iu/l | |
| Blood urea -45 mg/dl Serum creat- inine-0.90 mg/dl Calcium- 10.1 mg/dl Phosphorus- 4.1 mg/dl Sodium-147 mEg/l Chloride- 103 mEg/l Potassium- 4.20 mEg/l | Blood urea 46 mg/dl Serum creat- inine-1.05 mg/dl Calcium- 8.25 mg/dl | |
| Total cholest rol-205 mg/dl HDL cholestrol- 31.25 mg/dl VLDL cholestrol- 26.99% LDL cholestrol- 118.42 mg/dl Triglyscerides- 433 mg/dl | Total cholest- trol-185 mg/dl HDL cholest- rol-26mg/dl VLDL cholest- rol-93 mg/dl LDL cholestr- ol 106 mg/dl Triglyscerides- 506 mg/dl | |
| Bilirubin(T)- 0.4 mg/dl Bilirubin(D)- 0.2 mg/dl Bilirubin(ID)- 0.2 mg/dl Protein total- 7.6 g/dl Albumin-4.4 g/dl SGOT-126 u/l, SGPT-49 u/l GGIP-38 u/l Alk.P217 u/l | Bilirubin(T)- 1.7 mg/dl Bilirubin(D)- 1.13 mg/dl Bilirubin(ID)- 0.57 mg/dl SGOT-28 u/1, SGOT-28 u/1, Alk.P229 u/1 | |
| PS/29 | MN/30 | |
| • | 10. | |

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I CLAIM:

1. A process on ayurvedic prepration comprising in the steps of subjecting silver, mercury, sulphur and arsenic trisulphide to the steps of detoxification, grinding the detoxified mercury and silver in the presence of a citrus juice and then adding detoxified sulphur and again subjecting to the step of grinding to obtain a greyish black powder, adding detoxified arsenic trisulphide thereto and subjecting to the step of grinding, imparting a shape such as a ball thereto, coating the ball with detoxified sulphur in the presence of a citrus juice and subjecting the coated ball to the step of slow firing, detoxified arsenic tripsulphide and firing, repeating said steps of addition and firing ground in a citrus juice such that the weight of the ball is reduced by at least 10% to obtain an intermediate, adding serpentive and delphenium root thereto.

- 2. A process as claimed in claim 1 wherein the coated balls are introduced into an earthen vessel, sealed and then fired in the presence of cow dung.
- 3. A process as claimed in claim 1 wherein silver is detoxified by heating silver shets to a red hot state, and then introducing into sesame oil, subjecting the sheets to repeated steps of heating and treatment with sesame oil.
- 4. A process as claimed in claim 3 wherein the sesame treated silver is subjected to repetitive steps of heating and then treating with butter milk.
- 5. A process as claimed in claim 4 wherein the butter milk treated silver is subjected to repetitive steps of heating and then treating with cow urine.
 - 6. A process as claimed in claim 5 wherein the cow urine treated silver is then subjected to repetitive steps of heating and treatment in a herbal composition comprising amla, harar and bahera.

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7. A process as claimed in claim 1 wherein the herbal treated silver is subjected to repetitive steps of heating and treatment with kulthi.

8. A process as claimed in claim 1 wherein the citrus juice is lemon juice.

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Ti.

- 9. A process as claimed in claims 3 to 7 wherein said repetitive steps comprise 7 repetitive steps.
- 10. A process as claimed in claim 1 wherein the step of detoxification of mercury comprises in preparing an amalgam of copper, mercury and a citrus juice, subjecting such an amalgam to repeated steps of distillation to obtain detoxified mercury.
- 11. A process as claimed in claim 1 wherein the step of detoxification of sulphur comprises in heating crystalline sulphur in the presence of melted butter, and then introducing into triffla to obtain a scum of pure sulphur which is then removed therefrom.
- 12. A process as claimed in claim 1 wherein the step of detoxification of arsenic trisulphide comprises in wrapping arsenic trisulphide in cotton cloth and then introduced in a vessel of calcium oxide solution and into another vessel of pumpkin juice and boiled each time for a period of 3 to 5 hours.
- 13. A process as claimed in claim 1 wherein one part of detoxified silver is ground with one part of detoxified mercury in a citrus juice and that one part of detoxified sulphur is then added thereto obtain a greyish black powder.
- 14. A process as claimed in claim 12 wherein one part of arsenic trisulphide ground in a citrus juice is added to the greyish black powder and made into a shape.
 - 15. A process as claimed in claim 14 wherein one part of detoxified sulphur is ground in citrus juice and coated to said shape and then introduced in said vessel and tired in cowdung.

- 16. A process as claimed in claim 1 wherein vessel containing said fired mixture is opened and further arsenic trisulphide ground in the presence of lemon juice is added, the vessel closed and again fired and subjected to repeated steps to obtain a potent preparation.
- 17. A process as claimed in claim 16 wherein one part of the potent preparation is added to one part of serpentive and one part of delphenium root and ground in distilled rose water followed sandal wood water and to latakasturi water.
- 18. A process for producing an ayurvedic preparation for the treatment of leukemia substantially as herein described.



L IRRUR BININDI IN RIKKIN BONG INDI E JI SIK KAKI ORKO, KINI KIRK BINI BININ INGKA ING

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(71) Applicant and

(72) Inventor: PRAKASH, Vaidya, Balendu [IN/IN]; Mandir Marg, Turner Road, Clement Town, Dehradoon 248 002 For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A PHARMACEUTICAL AYURVEDIC PREPARATION

(57) Abstract: The present invention relates to a process on ayurvedic preparation comprising in the steps of subjecting silver, mercury, sulphur and arsenic trisulphide to the steps of detoxification, grinding the detoxified mercury and silver in the presence of a citrus juice and then adding detoxified sulphur and again subjecting to the step of grinding to obtain a greyish black powder, adding detoxified arsenic trisulphide thereto and subjecting to the step of grinding, imparting a shape such as a ball thereto, coating the ball with detoxified sulphur in the presence of a citrus juice and subjecting the coated ball to the step of slow firing, adding detoxified arsenic tripsulphide and firing, repeating said steps of addition and firing ground in a citrus juice such that the weight of the ball is reduced by at least 10 % to obtain an intermediate, adding serpentive and delphenium root thereto.



[] is attached hereto.

DECLARATION FOR UNITED STATES PATENT APPLICATION, POWER OF ATTORNEY, DESIGNATION OF CORRESPONDENCE ADDRESS

Attorney Docket 31446-179039

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name, and that I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled A PHARMACEUTICAL AYURVEDIC PREPARATION the specification of which

| | , as i tovisional Application | NO, and was afficild | ed on it applicable. | | | |
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| was filed on, as Provisional Application No, and was amended on if applicable. X] was filed under the Patent Cooperation Treaty on September 7, 1999, Serial No. PCT/IN99/00042, the United States of | | | | | | |
| America being designat | ed. | | | | | |
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| I hereby state | that I have reviewed and understand to | he contents of the above-identified s | pecification, including the claims, as | | | |
| amended by any amend | | | • | | | |
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| I acknowledge | the duty to disclose to the Patent and Tr | rademark Office all information know | n to me to be material to | | | |
| - Contract C | in Title 37, Code of Federal Regulations | | | | | |
| aj | | ,, 3 - 10 0 (-). | | | | |
| I hereby claim | foreign priority benefits under Title 3: | 5. United States Code, \$119 of any l | Unites States Provisional Application | | | |
| I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any Unites States Provisional Application listed below: United States Provisional Application No | | | | | | |
| gr= | | | | | | |
| I hereby claim | foreign priority benefits under Title 35 | United States Code \$110 of any fo | reion application(s) for patent littlity | | | |
| T hereby claim | Totolgh priorky benefits under The 33 | , Officed States Code, 9117 of any ic | reight application(s) for patent, denty | | | |
| model, design or inven | tor's certificate listed below and have | also identified below any foreign ap | plication(s) for patent, utility model, | | | |
| model, design or inven | tor's certificate listed below and have ifficate having a filing date before that of | also identified below any foreign ap | plication(s) for patent, utility model, | | | |
| model, design or inven | tor's certificate listed below and have ifficate having a filing date before that of | also identified below any foreign ap | plication(s) for patent, utility model, | | | |
| model, design or inven design or inventor's cert | tor's certificate listed below and have ifficate having a filing date before that of Prior Foreign Application(s) | also identified below any foreign ap | plication(s) for patent, utility model, s claimed: | | | |
| model, design or inven | tor's certificate listed below and have ifficate having a filing date before that of | also identified below any foreign ap the application(s) on which priority is | plication(s) for patent, utility model, s claimed: Priority Claimed | | | |
| model, design or invendesign or inventor's cert | tor's certificate listed below and have ifficate having a filing date before that of Prior Foreign Application(s) Country | also identified below any foreign ap the application(s) on which priority is Date Filed | plication(s) for patent, utility model, s claimed: Priority Claimed Yes No | | | |
| model, design or invendesign or inventor's cert | tor's certificate listed below and have ifficate having a filing date before that of Prior Foreign Application(s) Country int the following attorneys and agents t | also identified below any foreign ap The application(s) on which priority is Date Filed to prosecute this application and to the | plication(s) for patent, utility model, s claimed: Priority Claimed Yes No ransact all business in the Patent and | | | |
| model, design or invendesign or inventor's cert Number I hereby apport | tor's certificate listed below and have ifficate having a filing date before that of Prior Foreign Application(s) Country int the following attorneys and agents the ected therewith: George H. Spencer (R.) | Date Filed To prosecute this application and to the prosecute the application of the prosecute the | plication(s) for patent, utility model, s claimed: Priority Claimed Yes No ransact all business in the Patent and teg. No. 19,112), Norman N. Kunitz | | | |
| model, design or invendesign or inventor's certain Number I hereby apporting the product of the | tor's certificate listed below and have ifficate having a filing date before that of Prior Foreign Application(s) Country int the following attorneys and agents the ected therewith: George H. Spencer (Roor J. Kelemen (Reg. No. 21,016), Ma | Date Filed To prosecute this application and to the seg. No. 18,038), Robert J. Frank (Rrina V. Schneller (Reg. No. 26,032). | plication(s) for patent, utility model, s claimed: Priority Claimed Yes No ransact all business in the Patent and teg. No. 19,112), Norman N. Kunitz Robert Kinberg (Reg. No. 26,924), | | | |
| model, design or invendesign or inventor's certain Number I hereby apportademark Office conn (Reg. No. 20,586), Gal Allen Wood (Reg. No. | tor's certificate listed below and have ifficate having a filing date before that of Prior Foreign Application(s) Country int the following attorneys and agents the tested therewith: George H. Spencer (Roor J. Kelemen (Reg. No. 21,016), Ma 28,134), Ashley J. Wells (Reg. No. 29) | Date Filed Date Filed Date Filed Date Robert J. Frank (Rrina V. Schneller (Reg. No. 26,032), 347), James R. Burdett (Reg. No. 3 | plication(s) for patent, utility model, sclaimed: Priority Claimed Yes No ransact all business in the Patent and leg. No. 19,112), Norman N. Kunitz Robert Kinberg (Reg. No. 26,924), 1,594), Michael A. Gollin (Reg. No. | | | |
| model, design or invendesign or inventor's certain Number I hereby apport I h | tor's certificate listed below and have ifficate having a filing date before that of Prior Foreign Application(s) Country int the following attorneys and agents the ected therewith: George H. Spencer (Roor J. Kelemen (Reg. No. 21,016), Ma 28,134), Ashley J. Wells (Reg. No. 29, Voorhees (Reg. No. 33,074), Julie Petropic and part of the prior of the prio | Date Filed | plication(s) for patent, utility model, sclaimed: Priority Claimed Yes No ransact all business in the Patent and leg. No. 19,112), Norman N. Kunitz Robert Kinberg (Reg. No. 26,924), 1,594), Michael A. Gollin (Reg. No. A. Sartori (Reg. No. 41,289), Fei-Fei | | | |
| model, design or invendesign or inventor's certain Number I hereby apport I h | tor's certificate listed below and have ifficate having a filing date before that of Prior Foreign Application(s) Country int the following attorneys and agents the tested therewith: George H. Spencer (Roor J. Kelemen (Reg. No. 21,016), Ma 28,134), Ashley J. Wells (Reg. No. 29) | Date Filed | plication(s) for patent, utility model, s claimed: Priority Claimed Yes No ransact all business in the Patent and teg. No. 19,112), Norman N. Kunitz Robert Kinberg (Reg. No. 26,924), 1,594), Michael A. Gollin (Reg. No. A. Sartori (Reg. No. 41,289), Fei-Fei 14,457), all at Suite 1000, 1201 New | | | |

Address all correspondence to VENABLE, P.O. Box 34385, Washington, D.C. 20043-9998.

The undersigned hereby authorizes the U.S. attorneys named herein to accept and follow instructions from the undersigned's assignee, if any, and/or, if the undersigned is not a resident of the United States, the undersigned's domestic attorney, patent attorney or patent agent, as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorneys and the undersigned. In the event of a change in the person(s) from whom instructions may be taken, the U.S. attorneys named herein will be so notified by the undersigned.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Page 1 of 2

DECLARATION FOR UNITED STATES PATENT APPLICATION, POWER OF ATTORNEY, DESIGNATION OF CORRESPONDENCE ADDRESS

Attorney Docket 31446-179039

Title: A PHARMACEUTICAL AYURVEDIC PREPARATION

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Page 2 of 2